REMARKS

The Office Action of January 7, 2008 was received and carefully reviewed. Reconsideration and withdrawal of the currently pending rejections are requested for the reasons advanced in detail below.

Claims 1-44 were pending prior to the instant amendment. By this amendment, claims 1-3, 19, 24, 29, 31, 36, 38 and 43 are amended and claims 5-9 and 32 are canceled without prejudice or disclaimer. New claims 45-56 have been added. No new matter has been introduced. Consequently, claims 1-4, 10-31 and 33-56 are currently pending in the instant application, of which claims 1-3, 24, 31 and 38 are independent.

In the Office Action, the Examiner has objected to claim 38 due to informalities. In response, Applicant has amended claim 38 as shown above. Therefore, Applicant respectfully requests that this objection be removed.

Further, claims 5-9 and 39 stand rejected under 35 U.S.C. § 112, second paragraph due to a lack of antecedent basis. In response, Applicant has canceled claims 5-9 and 32 as shown above. Therefore, Applicant respectfully requests that the 112 rejection be withdrawn.

Additionally, claims 1, 7, 10, 13, 16, 19, 24-29, 31-36 and 38-43 stand rejected under 35 U.S.C. § 102(b) as being anticipated by WO 01/27969 (equivalent to U.S. Patent No. 6,827,870) to Gianchandani et al. (Gianchandani). Gianchandani, however, fails to anticipate the claimed invention. Each of the claims recite a specific combination of features that distinguishes the invention from the prior art in different ways. For example, independent claim 1, as amended, recites a combination that includes, among other things:

> a gas supply unit adapted to blow a process gas into a space between the first electrode and the plurality of second electrodes; and a unit adapted to selectively apply a voltage to at least one electrode among the plurality of second electrodes, wherein the plurality of second electrodes are arranged linearly in one line, and wherein the first electrode and the plurality of second electrodes are arranged

perpendicular to a subject substrate.

Independent claim 24, as amended, recites a combination that includes, *inter alia*,

> a plurality of plasma generation units each comprising a first electrode and a second electrode; a gas supply unit adapted to blow a process gas into a space between the first electrode and the plurality of second electrodes; and a unit adapted to selectively apply a voltage to at least one electrode among the second electrodes, wherein the plurality of plasma generation units are arranged linearly in one line, and wherein the first electrode and the second electrode are arranged perpendicular to a subject substrate.

Independent claim 31, as amended, recites a combination that includes, *inter alia*,

> a gas supply unit adapted to blow a process gas to a substrate to be treated through a space between the first electrode and the plurality of second electrodes; and a unit adapted to selectively apply a voltage to at least one electrode among the plurality of second electrodes, wherein the plurality of second electrodes are arranged linearly in one line, and wherein the first electrode and the plurality of second electrodes are arranged perpendicular to a subject substrate.

Independent claim 38, as amended, recites a combination that includes, *inter alia*,

> a gas supply unit adapted to blow a process gas through a first space and a second space continuously, the first space being between the first electrode and a substrate and the second space being between the plurality of second electrodes and the substrate; and a unit adapted to selectively apply a voltage to at least one electrode among the plurality of second electrodes, wherein the plurality of second electrodes are arranged linearly in one line, and wherein the first electrode and the plurality of second electrodes are arranged perpendicular to a subject substrate.

At the very least, Gianchandani fails to teach or disclose any of these exemplary features recited in independent claims 1, 24, 31 and 38.

As stated above, Applicant has amended claims 1, 24, 31 and 38 to recite the features of "a gas supply unit adapted to blow a process gas," "wherein the first electrode and the plurality of second electrodes are arranged perpendicular to a subject substrate" and "wherein the first electrode and the second electrode are arranged perpendicular to a subject substrate." These features are supported, for example, in Figs. 1, 2A and 2C and paragraph [0044] of the

published application. The Examiner asserts that "Gianchandani teach gas from gas source 13 is introduced (blown) between substrate 17 (like first electrode) and second electrodes 51, 52 and plasma is generated within openings 24 in dielectric plate 22 (between first and second electrodes 17, 26). Gianchandani also teach that ingress of gas in the openings 24 can be obtained through laterally extending micro-channels (not shown) in the dielectric layer 22. Thus, Gianchandani explicitly teaches blowing a process gas into a space between the first and plurality of second electrodes."

In contrast, Applicant contends that Gianchandani discloses "To initiate processing, the pump 12 is operated to exhaust ambient gases from the chamber 11 and reduce the pressure in the chamber to a base level, after which the desired reactive gas or gases are supplied from the sources 13 to the chamber 11 until a selected pressure level in the selected gas is reached in the chamber" (col. 5-6, lines 66-5). That is, at first, the chamber is filled to the selected pressure level of the reactive gas before igniting plasma. On the other hand, the claimed invention explicitly recites a gas supply unit adapted to blow a process gas into a space. Applicant contends that Gianchandani merely discloses to fill in the chamber which does not correspond to blowing the gas into a space. Further, Applicant contends that each of the exemplary features described above are not disclosed by Gianchandani. Therefore, it cannot be said that Gianchandani anticipates the present invention, as claimed.

For anticipation under 35 U.S.C. § 102, the reference must teach every aspect of the claimed invention either explicitly or impliedly. Any feature not directly taught must be inherently present (M.P.E.P. 706.02). Since each and every element, as set forth in the claims are not found either expressly or inherently described as required by the M.P.E.P., Gianchandani cannot be said to anticipate the invention as claimed. Hence, withdrawal of the rejection is respectfully requested.

Additionally, claims 2-6, 8, 9, 11, 12, 14, 15, 17, 18, 20-23 and 37 stand rejected under 35 U.S.C. § 103(a) as being obvious over Gianchandani in view of U.S. Patent No. 6,777,880 to Morfill et al. (Morfill) and claims 30 and 44 stand rejected under 35 U.S.C. § 103(a) as being obvious over Gianchandani. Independent claims 2 and 3, as amended, recite similar features as discussed above with respect to claims 1, 24, 31 and 38. The Examiner relies on Morfill to teach grid sizes of electrodes. However, Morfill fails to cure the deficiencies of Gianchandani because the Examiner has failed to demonstrate how Morfill, alone, discloses or fairly suggests each and every feature recited in the claims. Therefore, Applicant contends that it cannot be said that Gianchandani, taken alone or in combination with Morfill, makes obvious the present invention, as claimed.

In accordance with the M.P.E.P. § 2143.03, to establish a *prima facie* case of obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 409 F.2d 981, 180 USPQ 580 (CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 196 (CCPA 1970). Therefore, it is respectfully submitted that Gianchandani in view of Morfill, taken alone or in any proper combination, fails to disclose or suggest the subject matter as recited in the claims. Hence, withdrawal of the rejection is respectfully requested.

New claims 45-56 recite the features of a plasma treatment apparatus wherein the blown process gas acts on the subject substrate and wherein the plasma generation unit is adapted for movement in an X direction and a Y direction relative to the position of the subject substrate (see, for example, in Figs. 1, 2A and 2C and paragraph [0048] of published application).

Each of the dependent claims depend from one of independent claims 1-3, 24, 31 or 38 and are patentable over the cited prior art for at least the same reasons as set forth above with respect to claims 1-3, 24, 31 and 38.

In addition, each of the dependent claims also recite combinations that are separately patentable.

In view of the foregoing remarks, this claimed invention, as amended, is not anticipated or rendered obvious in view of the prior art references cited against this application. Applicant therefore requests the entry of this response, the Examiner's reconsideration and reexamination of the application, and the timely allowance of the pending claims.

In discussing the specification, claims, and drawings in this response, it is to be understood that Applicant in no way intends to limit the scope of the claims to any exemplary embodiments described in the specification and/or shown in the drawings. Rather, Applicant is entitled to have the claims interpreted broadly, to the maximum extent permitted by statute, regulation, and applicable case law.

Should the Examiner believe that a telephone conference would expedite issuance of the application, the Examiner is respectfully invited to telephone the undersigned agent at (202) 585-8100.

Respectfully submitted,

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